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1	changing how water was routed, putting in new	
2	culverts where they were inadequate and would flood	
3	in the fields, a number of low tech solutions to the	
4	problem and then actually quantify how much we could	
5	reduce the bacteria, and in doing that, we reduced	03:08PM
6	fecal coliform bacteria by about 75 percent even	
7	though we only worked with two out of the three	
8	farmers, the third one wasn't willing to work with	
9	us. We're focused on the source and trying to	
10	remediate that source of fecal bacteria.	03:09PM
11	THE COURT: I think Miss Burch's next	
12	question is going to focus on source tracking.	
13	Q Are there any source tracking methodologies	
14	that have been used in the Tillamook watershed?	
15	A Yes, there have been two that I'm aware of.	03:09PM
16	The first one is bacterial antibiotic resistance	
17	work, and I actually collected the samples that were	
18	used in that and consulted with the scientists at	
19	Oregon State University who did that work, although	
20	I wasn't directly involved in interpreting the data	03:09PM
21	or doing other bacteriology analyses. So that was	
22	done to try to discriminate in the basis for that	
23	is that these bugs that are out there are used to	
24	being exposed to certain antibiotics. If the bugs	
25	that come out of people used to being exposed to	03:09PM

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1	people antibiotics, if there are bugs from cows,	-
2	they're exposed to cow antibiotics and so on. So	
3	looking at the suite of resistance of the bacteria	
4	to a whole group of antibiotics, you can get some	•
5	insight in terms of whether they came out of people	03:09PM
6	or came out of cows or came out of wildlife. So	
7	that study was conducted, and then there was also a	:
8	DNA study that was conducted. I was not involved in	
9	that at all. I had interactions with agency people	
10	who were involved with it, had discussions, but I	03:10PM
11	have no firsthand knowledge about, what came out of	
12	that study and have not read the report that came	
13	out of that study.	
14	Q Do you know whether anybody in Oregon is	
15	relying on that to make decisions on what happened	03:10PM
16	in the watershed?	
17	A All I can provide is some hearsay. I'm not	
18	sure you want my hearsay. I don't have any	
19	definitive answer to that question.	
20	Q You don't know?	03:10PM
21	A I don't know the answer to that question	
22	myself, no.	
23	Q Okay. That's fine. I'm going to give you	
24	what I have marked here as Exhibit 602. Do you	
25	recognize that?	03:11PM